

B O O K N U M B E R 1 2 8

NON-ADHESIVE BINDING

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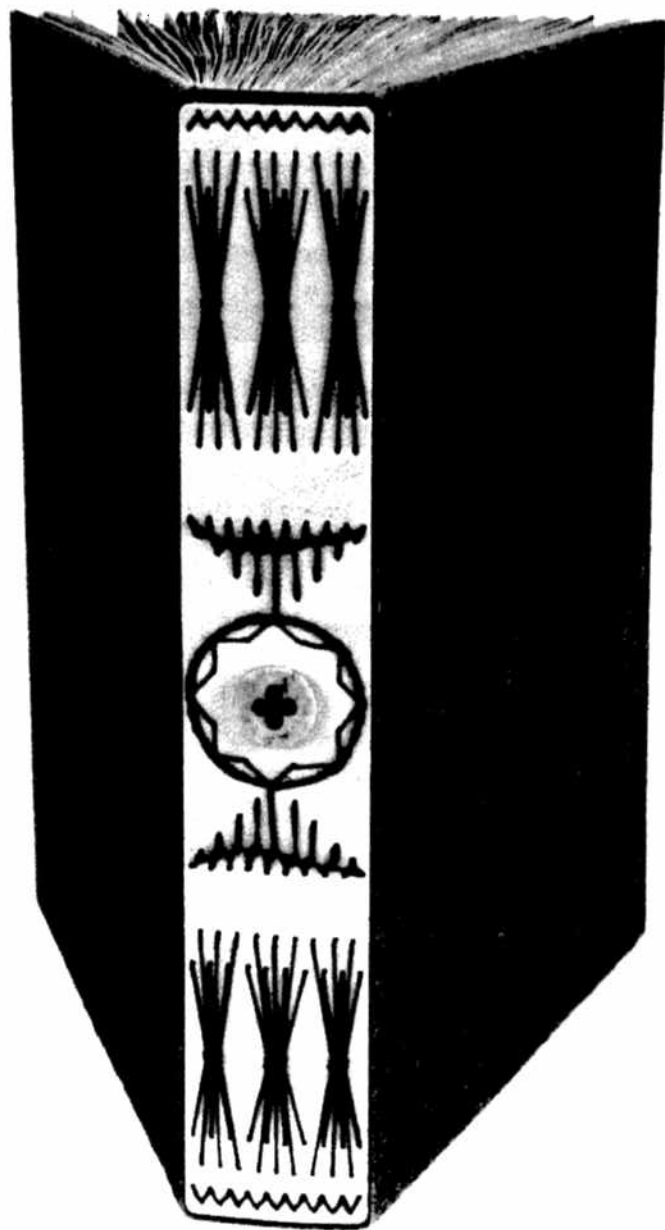
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TO GARY FROST
who brought me to books
gave me my first binding lesson
and continues to encourage, guide
and inspire.



Gary Frost, untitled, Langstitch und Kettenstitch, 1990. This blank book has a leather spine over the paper covers.

ONE ONE-FOLD BOOK

THE MENTAL OBJECTIVE

Day one:

The first bindings are the most difficult. The beginner has a far greater challenge than the expert. The more simple the binding, the greater the challenge.

Fold a sheet of paper in half. The surface for display of text or picture has now been removed from the two-dimensional world of the single-sheet format. The resulting folio is now two connected planes, movable, able to arc in space because of the created hinge. The hinge-fold also delineates four surfaces as four pages.

The concept of using paper for text or pictures has been totally altered by the simple act of folding a piece of paper and understanding the consequences. Learning to see requires vigilance so that actions are not taken for granted.

I examine the paper I have folded in half. The term for this is a *folio*. Where the two planes meet, the fold creates a valley.

That is not true. It is equally a mountain peak. It is my point of view which creates the valley. If I turn the folio over, the fold then appears to be a mountain peak. I must be alert, not to assume a "truth" but to understand that *fact* is dependent upon context.

That *act* has created four pages and two implied sheets. Building comprehension requires paring down to bare necessities. Again, I look at the sheet I have folded. I concentrate on the crease-as-hinge: The valley is referred to as the *gutter*. The mountain peak is the *back*, or *backbone*.

Since the sheets are connected, this is a hand-bound book. I think about how these pages are seen. Their display is interdependent: there is no "front" side, as the surface in view is the front only while it is being viewed. It becomes the back when the page is turned. Context. I need no longer concern myself with single, unconnected sheets of paper imaged on one side, which have a front and a back. I must not think in terms of one-sided display. The fold has created a book—a totally different stage upon which to perform.

Recto means the right-hand page of an open book. *Verso* is the back of that page. An opened book presents, on the left, a verso of the previous recto. On the right is a recto. It is important to understand *both* pages in view are *front* sides until the page is turned, then each becomes a back side. *Verso* is not synonymous with *back*. A recto in view is always on the right of the gutter. A verso in view, on the left.

A single sheet imaged on one side has a fixed front and back. In the codex, fronts are pages in view, which become backs when the page is

turned.

The *now* of a book is the opened folio.

Since the four pages cannot be seen simultaneously, they are experienced *in time*, like a play in four acts, a symphony with four movements. Time and movement are a necessary part of this format. Any art form revealed in time must be paced. Rate of turning pages is not standard or arbitrary. Each page is paced by the maker. The viewer can perceive the precise pacing of each page.

The fold *physically* holds together this blank book. Anything added to the surfaces in the form of text or pictures must conceptually tie the surfaces together. Otherwise, each surface is treated as an island where content is marooned, isolated, rather than acting as a multi-directional navigation. *Island* is a concept relevant only in the single-sheet format.

A book may be bound using single sheets rather than sections, but organization of the content has nothing in common with the single-sheet format. I must make concerted effort to remove myself from single-sheet mentality. This is a whole new world. A book is not the act of compiling information, but the process of timely construction of an organization.

Bookbinding at its ultimate realization is not a physical act of sewing or gluing, but a conceptual ordering of time and space. It is not sewing but structure of content that ties together pages of a book. Binding must begin with the concept of text and/or pictures.

The single sheet allows an overall view of everything; it has a narrow sense of time. Movement in the single sheet is limited to scanning. The viewer moves to the next single sheet, takes in a general view of everything and scans bits of information or carefully plows row by row this flat field.

This is not the manner in which a book should be experienced. It is not an easy transition from working in the single-sheet format to moving into the book format. To treat a book as no more than a stack of sheets would be a denial of inherent movement as fronts evolve into back sides. A codex is more than a *group*. The progression through a codex is more than a *series* in which the eye absorbs one page then moves in a straight line to the next, to the next. Such structure is linked, each successive idea dependent upon the previous.

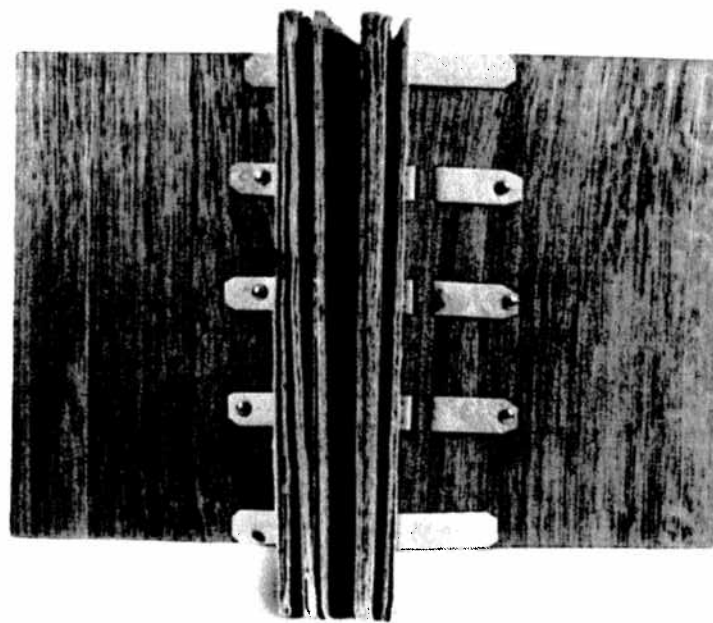
With the content referring back and forth and the fronts evolving to backs, the structure of ideas *and the pages* are contingent upon events other than the adjacent. This is in addition to contiguous movement forward, page to page to page.

Single sheets can have common theme. But every page of a book is totally dependent upon every other, necessitating a complexity of movement. Content of pages moves back and forth by cause and effect—

in addition to the steady linkage forward.

This movement is within the boundaries of what is stated, and beyond by what is implied. The book artist structures the gap between the pictures just as an author speaks between the lines. But what is even better is for the artist and the writer to compose the space between the pages as thoughtfully as what is printed upon the surface. A book is *not* a running manuscript or compilation but a structuring of pages as an integral part of the content. This creates a *gestalt*.

The multiple-page format has its own demands based on the inherent properties of the book. The multiple-page format also has options, totally new possibilities unavailable in single sheets. These new possibilities of movement stem from an understanding of how the multiple-page format differs from a collection of single sheets. The key is not to "add" in the sense of treating the book as an empty vessel into which things might be stuck. Rather, learn to see the blank book for its power and its potential.



Gary Frost, a blank book, sewn onto tapes which are laced through wooden boards.

The power of a blank book is that it is not *blank* in the sense of being empty, but is an entity complete in itself: It has a beginning and an end. Turning pages move through time and space. Even a blank book presents a group, series *and* a sequence. Every book is a format. The western codex utilizes two-sided display bringing new definitions to patterning, pacing. It is far removed from the single-sheet format. Since this format exists in space, it is nearer to sculpture than painting. Since it exists in time, it has more properties of cinema than the still-photography it might contain. A book of text or prints is *moving pictures*. Rather than a compilation of single sheets, each book is an organized totality, a union of states, each sheet subordinate to that union.

Folding a sheet of paper has created the most basic of book bindings. By understanding the power of *what* has been created, I can begin to appreciate and investigate the potential of the blank book.

The potential is not to stick things in, but to allow ideas to emanate *from* the format as text and/or pictures. It is to revel in the book as action, to reveal the plane of activity, then help it relinquish center stage as it curls in the light and turns on its hinge into shadow, to disappear. In its place comes forward the next plane to entertain and inspire.

At any point in time, the reader is at the opened folio, at the fronts of pages. Indeed, it is impossible to ever realize the "back side" since on turning the page, the verso changes into an opened folio and, like magic, becomes a front.

This movement through pages is timed. The bookmaker builds in a rate of page turning. Yet, unlike cinema or dance, the reader can override the pacing of the author and linger at any point, retreat to some other page, or sneak a preview of what is yet to unfold.

Content is the process of coming to understand the essence of a blank book and to proceed from any inherent characteristic as a point of departure.

The power is *what*; the potential is *how*.

What is binding? One thing I feel strongly is that text can be so written that the words create the pages. The pages, as well as the writing relate back and forth, tying together all the elements into a unified flow. One would ask no less cooperation from all the instruments of an orchestra.

This inter-connection of all the *elements of a book*— *binding, the page, text and/or pictures, turning pages and display*. It is conceptual bookbinding, sewing on the ultimate level.

TWO TWO-FOLD BOOKS

SKETCH NUMBER 1: *two folds in opposite directions*

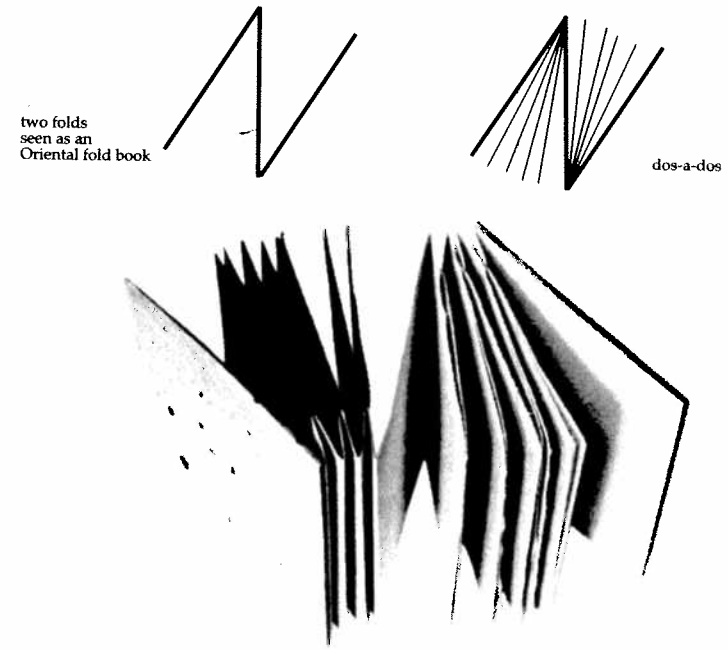
Day two:

Today I take another sheet of paper. This time I make two folds, reversing the direction of the second. The result is an Oriental fold book. How does this differ from the one-fold book which is a codex? That one-fold book merely suggests an Oriental fold book.

By making two alternating folds, I have the essence of a fold book. This book I have hand bound can also be seen as a compound codex. Back to back, it is what is termed a *dos-à-dos*.

There are *simple* bindings, meaning the elemental *types of books*, as opposed to easy to make. These are the fan, blind, codex, and the fold book.

There are *compound* bindings, which are a combination of two simple bindings. *Concertina Binding*, page 261, is a codex/fold book. The *dos-à-dos*, page 253, is two connected codices. Any dos-à-dos can also be thought of as a single Oriental fold book with side issues:

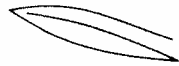


Two books attached by a single back cover in common is referred to as a *Dos-à-Dos*. It is a traditional form, often used for two related books. See page 253.

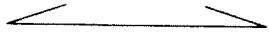
SKETCH NUMBER 2: two folds in the same direction

I fold another sheet of paper twice, this time both folds in the same direction. What do I see? My question ought to be, "Where did I make the folds?" How did I *determine* where to make the folds? I must not act without thinking. I may spontaneously respond and then think, but I cannot take for granted. I made the folds equidistant. What are the permutations of folding a sheet twice, with both folds the same direction? They are the following:

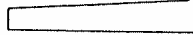
1. creating three leaves of equal width, folds equidistant.



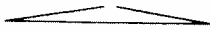
2. creating three leaves, two of which are equal in width, the third much wider than of the total of the other two.



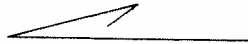
3. creating three leaves, two of which are equal in width, the third far narrower than either of the other two.



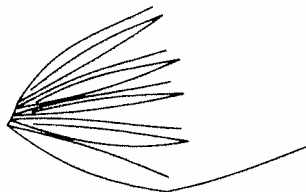
4. creating three leaves, two of which are equal in width, the third the width of the total of the other two.



5. creating three leaves, each a different width.



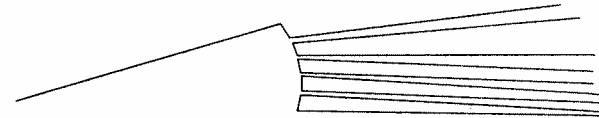
Each of the five examples represents a compound binding, a codex/codex. What can you do with permutation 1, *equidistant folds* as a book? I might use this as units to be stacked and sewn. Each unit is a folio with a fore-edge throw-out:



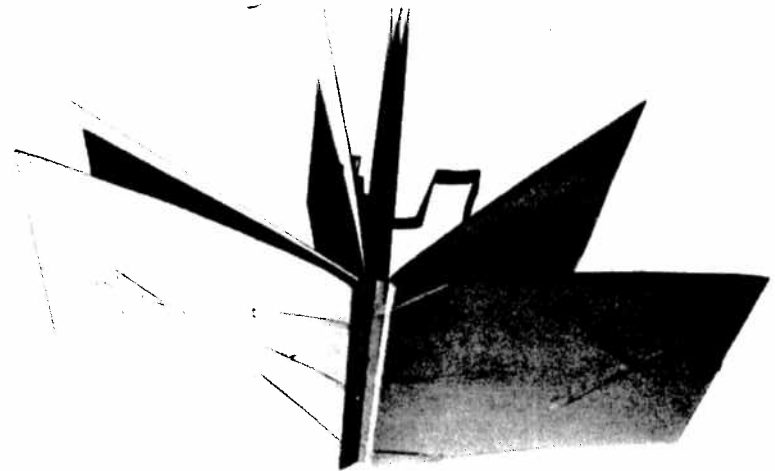
Example 2  does not interest me, at least not as much as 1 and 4, because it does not completely hide the third leaf in the unit. There are more possibilities of content combination when the third page can be hidden by closing the other two. Opening and closing the pages allow some information to come forward while other imagery completely disappears. This permits the element of surprise.

I dismiss permutation number 5 because the action of the two hinges is limited. The movement is flawed because the longest leaf cannot be turned to rest within the opposing fold. The shortest leaf must always be positioned between the middle and the longest leaf.

Example 3  seems useless to me as well. It will not close flat, so I summarily dismiss it. However, some other bookmaker will take time to see, finding this to be the most ideal permutation of two folds as units for binding. The third shorter leaf would not be seen as a page, but become part of the backbone. Only the two longer sides would be pages. The accumulation of these units would swell the back deeper than the fore-edge accommodating folds-out or pops-up within the longer leaves.



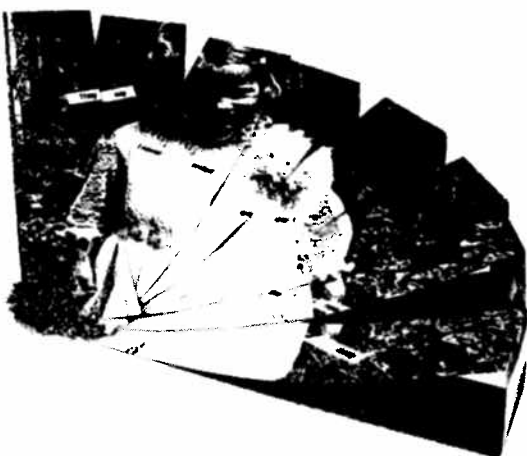
Cross section of the book shown below.



Scott McCarney, untitled, 1982. One-of-a-kind, imaged by cutting into the page to form pops-up. Type of binding attributed to Joan Flasch uses strips of woven paper rather than thread. 12.5 x 12 cm.

In fact, example 3 has even more potential I have overlooked. Still another book artist would look at example 3 and see the shorter leaf as the foredge rather than the spine. Units would be compiled and bound at the opened ends of the longer leaves.

Rather than assuming the binding of the units should be a codex, Lisa LaLonde has bound the units as a fan book, allowing the units to telescope open to a tunnel formation and collapse shut.



Lisa LaLonde, *They Say*, self-published 1990.

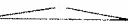
In "turning" the pages, partially telescoped units overlap. At certain points in this movement a partial image on one unit is completed by the remainder of that picture on another. At these same points, incomplete text on one leaf is completed on the next. This creates precise points of pause positioning the leaves in the act of examining the structure.

Pages create their content.

Example 4 is a potentially strong format. Like example 1, this hybrid could also be stacked as units and sewn. However, in compiling and sewing, units lose their original character. Now, it becomes a book with every other leaf short, alternated by a longer leaf with a fold-out. The pages of such a book do not evoke or extend the essence of the unit.

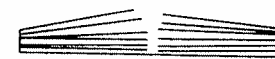


I must take time to investigate example 4 for the quality of the single unit. Observation takes great effort. The artist is aware more than most that all of us are blind. We only truly see at brief points of inspiration. One way of seeing the unit is as two facing codices with a large back page in common. The two front pages are equal in width and tangent.

Tangent is the key, for it is the essence of this format, a feature unique to all the examples. What does it mean? Tangential pages offer two facing stages instead of one. But any codex opened to any point has two facing pages. This is the *opened folio*. However, example 4 has two hinges,  compounding the action.

The two shorter pages can be imaged separately. One image or text can cross from one to the other page. Opening, that is turning either the right or left page, reveals half of what is on the third (or back) page. This half must function compositionally with the remaining front page which has not yet been turned, as well as with the back side of the page which has been turned. Opening the second front page will further complicate the movement basic to this format.

I see the potential of example 4 not as units to be compiled and sewn, but as a *what* to exploit the inherent movement of this format, which is the interplay of tangential pages. This format is referred to as *French Doors*. It is described on page 257.



French Doors format

Adding additional tangent pages to each facing codex extends the interplay of permutations.

1. *Related Volumes* One facing book can be viewed while the other remains closed. It is a play in two acts. Or, instead of two related volumes, it might be a before and an after or an either/or concept. At every point in turning the pages of one volume while the other remains closed, each opened folio must incorporate or juxtapose with the closed cover of the unopened book.
2. *Implied Single Volume with Double Opened Folio* Both books can be viewed simultaneously like opening double French doors. Both covers are opened at once, both first pages are opened at the same time, et cetera. This sets up a series of compositions across the four panels of the two opened folios.
3. *Interacting Volumes* The two books can be seen alternately, intermittently randomly, turning one or more pages first of one book, then the other. Compositionally, this requires every possible permutation of combined imagery and/or text.

The artist and the craft person must always find the essence of an idea and extend it to its full potential. It's like telling a joke. You don't reveal the punch line at the beginning. You build on it for all it's worth.

Bookbinding is not a mindless task of rote repetition. Bookbinding as an art is severely limited if it is after the fact, rather than part of the statement.

I tell myself

*take another sheet of paper.
think of what you are holding.
think as you are folding
think as you.
think.*

The essence of refining a binding is getting it down to bare necessities.

TRIADS

When I think about bookbinding, I cannot determine *how to* without addressing, again and again, the question, *why?*

Why must be answered before *how to* can become meaningful.

What is needed will determine *how*.

It is one thing to learn mechanically how to sew a particular binding. It is much better to begin binding from a far more fundamental approach in order to see the process in its simplest terms, for only then can the imagination leap to invent the complex.

What is meant, what can be bent to be seen as the term *binding*? The most obvious answer is to dwell on the various means of constructing an order of pages.

Binding is the activity of folding down and/or attaching to. One sheet can be folded to construct a book. Various ways of folding and cutting will create different bindings which allow longer journeys and other itineraries through the format.

Sewing and adhesives are obvious ways of connecting. What about interlocking slits, weaving pages together, hinges, pockets, snaps, grommets and velcro?

What is the most obscure, seemingly irrelevant definition of basic terms for *sheet*, *cover*, *adhesive*, *sewn* and *bound*? Terms must be defined, but not confined; they must be expanded. The first tools to pick up are not a bone folder and needle, but time, thought, pencil and notebook.

Yet, for others, it is best to jump right in and make a binding so that the product encourages continuation. Later comes introspection on how to approach the concept of binding.

NUMBER GAME

Understanding ways of attachment in bookbinding may not come from making lists or hands-on labor. At times I take an indirect approach to a problem. One way is by equation. I think of the book in numerical divisions.

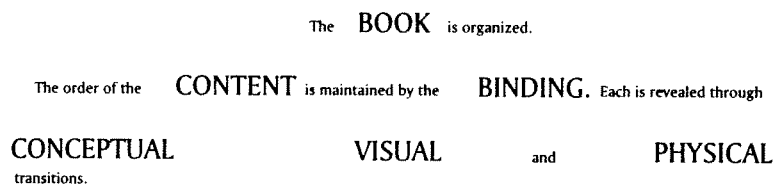
The number one concern is the totality of a realized book. Orchestration is not possible without each element relinquishing sovereignty to its union.

Gary Frost, two binding models, one in vellum, both with leather on the spine. Stitches on the spine have been tied or used as warp threads for the thicker wool weaving. The bindings are Long Stitch/Link Stitch, which is described on page 177.

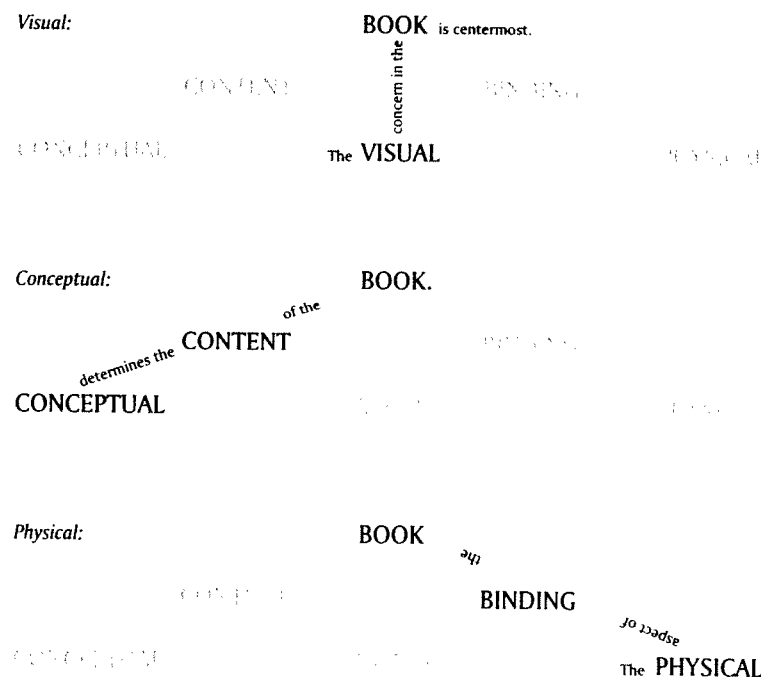
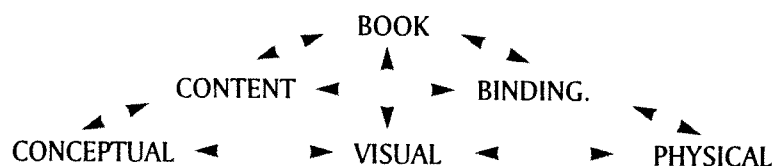
When I think of the number two, many pairs come to mind: recto/verso; text and pictures; space and movement; planned itineraries and random reading. Order and chaos are intertwined. The preconceived is balanced by the intuitive. There is the shelved book-as-receptacle, with its latent content in opposition to the book coming to life as it is read. There are practical as well as aesthetic concerns. If I had to choose the most basic two-of-a-book, it would be the content and how its order is maintained, displayed, revealed, protected and properly stored. This is its binding. Content plus binding equals book. That does not mean binding and content are of equal value. Binding serves content.

Three-of-a-book is an easy answer for me:

- Concept of the content and binding.
- Visual aspects of both.
- Physical needs of the object.



There are many paths through this pyramidal hierarchy:



The book, constituted by everything in the pyramidal hierarchy, is always top and center, the totality and must dominate. Each decision on any element within is subordinate to the realized book. If the binding dominated, the book would be superficial. If conceptual, visual and physical organization were not considered, the content of text and/or pictures would be merely a compilation of islands, rather than an orchestrated totality.

It would appear that at one extreme, the content is quite separate from the process of binding. For me, nothing could be farther from ideal. I sometimes think about the *physical object*. There is concrete space between words and/or pictures. Movement is constructed through content, which determines the rate of turning pages.

At other times I think about *conceptual approaches*. There is the implied space within ideas of simple or complicated content. This requires creating a binding structure which can best facilitate revelation of the content. The itinerary may be straightforward, convoluted, cyclical or overlapping. At times, this requires an unique, non-traditional binding to best facilitate the itinerary through the book.

Still, other times I concentrate on *visual concerns*. Do I want to work with the book as spartan or elaborate, use a range of materials or processes, texture, pattern? To what extent do I want emphasis on graphic design, typography, the layout of the pages?

It quickly becomes clear that any visual concern is also a concern for conceptual ideas and the physical object. Modifications of the physical object affect the conceptual and visual aspects. Whatever I conceive determines the look of the end-product. Although one element may dominate, the physical, conceptual and visual decisions are interwoven. Each of the three areas speaks of both content and binding. That is why it is farce not to consider the binding until after the contents are completed. Each element of the hierarchal pyramid is essential and interdependent:

Binding: In the display of a **BOOK**

CONTENT is facilitated by its **BINDING** which relies upon the

CONCEPTUAL to materialize the **VISUAL** as form and upon the **PHYSICAL** to function as *ACTION*.

Content: The **BOOK** is ideal

when **CONTENT** is served by the proper **BINDING** to reveal

CONCEPTUAL as well as **VISUAL**, and sometimes **PHYSICAL** transitions.

Movement

Some people could relate the pathway through content to ideas found in cinema or patterns in dance; but for me, I see so many parallel terms in musical composition.

Organization

Structure of the binding is similar to collage or a picture puzzle. The intended order of the content is maintained or can be reconstructed. A stack or portfolio dropped, like a raw egg, is irretrievable. Binding and content are movement and structure.

As Gary Frost¹ says, it is *the-book-as-action*.

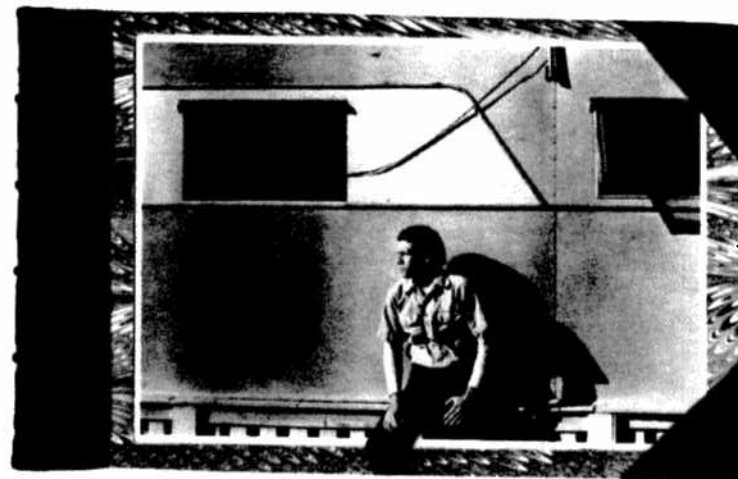
This brings me back to thinking on the most simple basic level of what is meant by maintained: glued, sewn, folded, interlocked, bound and layered information: sheets, covers, text, images.

In collage, puzzles and binding, maintaining is a concern for attaching or interlocking. Unlike collage, the binding must allow access to the layered information—attached single sheets or the introduction of folded sheets. This is the concern for action.

One of my favorite artists is John Wood. He makes books and collages among other things. John sometimes gives workshops in collage and stresses ways of attaching. Gluing is an obvious solution. The activity of investigating attaching disparate elements demonstrates how function affects form. This is true in collage; it is equally true in physically inventive binding procedures.

The physical action in proficient binding of traditional formats influences the content. Unique means of attachment result in a binding which alters content: subject matter, mood and pacing. Non-traditional formats offer more radical opportunities of binding/imaging. Physical movement through the object may not take a straight path because of folds other than at 90° or because of compound hinging. Hybrid bindings require new ways of seeing and rethinking itineraries through a book. See the various *compound bindings* on pages 249-280.

Dwelling upon numerical divisions to define a book, I do not make it past the number three. Just as well. If I got much higher it would mean I was not allowing my imagination time to become engrossed in order to find that for which I am searching.

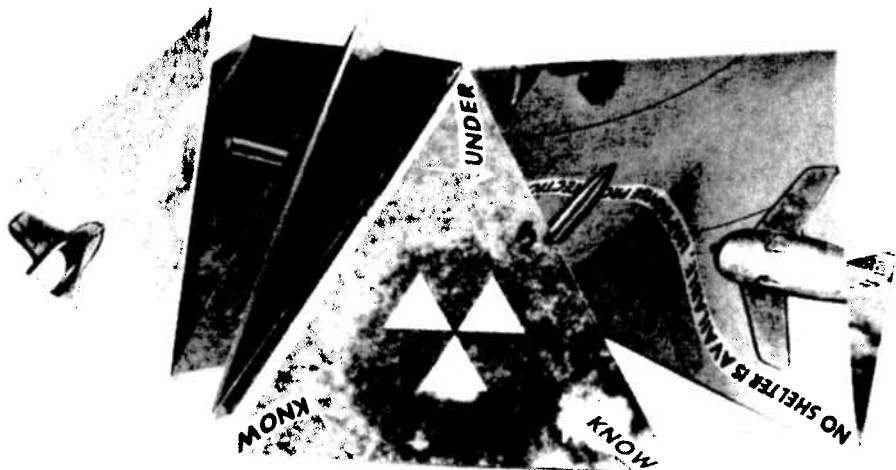


Keith Smith, *The Photographer in Search of His Image*, 1998. Half leather raised cord. Cover image is a postcard from a friend, his self-portrait, Torrence, CA, 1969.

AGGRESSIVE BOOKBINDING

The best bindings are more than craft which facilitates turning pages and providing a protective cover. Bindings should never be an after-thought; they are not independent of content.

If the binder is not the author, care must be taken that the binding is appropriate to style, mood and intentions of content. The binding should not be intrusive. It should not be too much nor too little. That is the advice of the renowned accompanist Gerald Moore. He says that in German lieder the piano is an equal with the singer. Sometimes he is accused of drowning the singer, but he replies that the piano must support the voice, creating a duet. Balance is the art of the accompanist. Not too much, not too little. And so it is with binding.

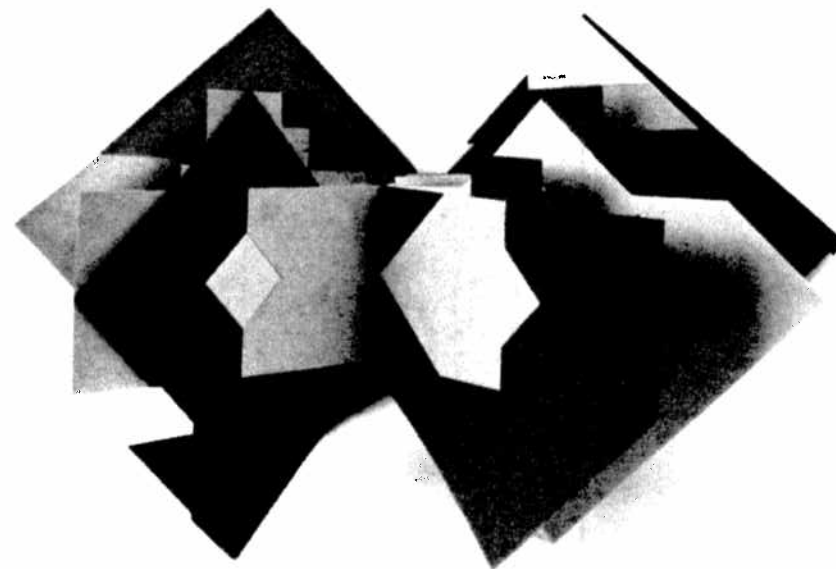


Scott McCarney, *In Case of Emergency*, Nexus Press, 1985. Three-color offset edition of 400. Two intersecting fold books are pamphlet sewn together. Pages are folded on a 60° angle to further compound the itinerary through the book. The complication of reading reinforces the subject matter—evacuating a large city in case of nuclear attack. 15.2 x 15.2 x 15.2 cm.

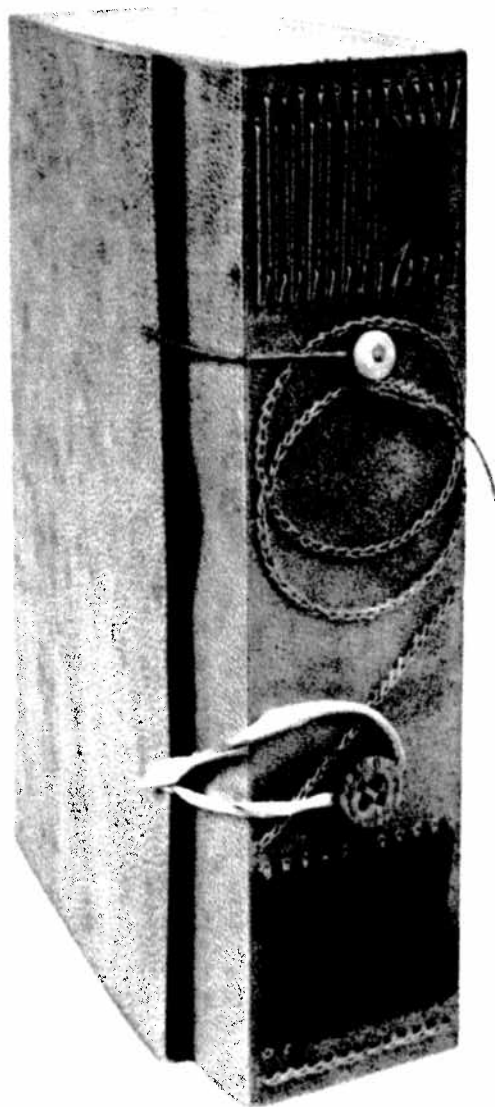
If the binder is the author, or works in collaboration with the author, there is far more leeway. Binding becomes a broad horizon of potential. In producing a new book as opposed to re-binding an existing one, content and binding evolve simultaneously in a give-and-take situation.

Binding ideally is an integral part of the total experience, an element of the content, part of the statement. Mass-produced or one-of-a-kind, a binding should at least work in harmony from conception to finished piece.

Binding should be more than just appropriate. Sometimes, imaginative approaches to binding influence and reinforce content. In the ultimate collaboration, binding determines content.



Margaret Kaufman, *Aunt Sallie's Lament*, Janus Press, 1988. Book design by Claire Van Vliet based on a binding structure developed by Hedi Kyle and made with Linda Wray. Box is by Judi Conant. The spine strap can be removed. The codex transforms into a fold book, allowing all the pages to be seen at once.



Pamela Spitzmueller, Long Stitch/Link Stitch Models with vellum covers. The long stitches on the spine are elaborated with weaving and macramé. 1986.

THE DOVETAIL

A book is a combination of its content and its physical binding. Concerns for one flow back and forth into the other.

BINDING CAN BE CONTENT

Binding can be content to be limited to modest attachment of pages within a protective cover. Aggressive bookbinding is the rare interplay of all elements of the book.

Approach to binding can be aggressive or remain traditionally passive. Content does not have this option.

CONTENT MUST BE BINDING

Text and/or pictures must weave back and forth tying everything together, not merely connecting one page to the next. Sticking a running manuscript into a book treats the sheets as nothing more than surface to support the content. Resulting text is organized; pages are ordered only on the shallowest of levels—in a numerical sense. The pages do not relate back and forth. It does not show an awareness of the power and potential of the *format*.

Binding and content should be mutually dependent.

The *act*, rather than the result of folding is the essence of a codex book. The action should be with full knowledge of the ramifications of bringing into being the only art form with planar two-sided display. As I have tried to portray in the first demonstrated binding, the one-fold book, the time/space event is as much a part of the book experience as anything printed on the pages. Regulation of time through space alters anything printed on the page, as much as tempo alters melody.

To me, style in writing varies with a change in format, just as words in a conversation are different from an impromptu speech. Writing words to be delivered as a lecture is different from conceiving a running manuscript as a handout. Writing in the single-sheet format, such as a hand-out, is vastly different from text composed as a book experience.



13017 ■ ■



GIULIO GIANNINI & FIGLIO - F.

Marbled and decorative papers from around the world. I am constantly buying papers. Once I asked Mrs. Aiko for a particular decorative paper. She said only two people in Japan made it. One retired; the other moved to a city for a better job. The paper was now extinct. After that, each time I am in a different city, I visit paper stores and buy every paper to which I am attracted, with no idea when they will be used. Now I have a vast store of papers from which to choose. For sources of paper check out the *Sources* on my web site.

COMING to TERMS

The book as physical object is an exploration. Each element presents opportunities as well as challenges in facilitating particular tasks through elaboration of design. The conceptual, visual and physical elements of content and binding unfold through time and space. In understanding the role that each element can perform best, I begin to orchestrate.

A book can be created through a play upon the action of turning a page. Indeed, a life time's work can have as one under-pinning the exploration of what physically transpires in turning the page.

Becoming involved and excited about any aspect of the physical book can reveal potential which, once understood, can easily be expanded as theme. Only then is subject matter, mood and point of view considered. A book grows out of an understanding of its inherent properties, rather than the inclusion of outside elements. Conception springs from the physical format, evolving into a realized book. It is the opposite of sticking things into a blank binding which disregards orchestration of all the elements—binding, the page, text and/or pictures, turning pages and display.

Compilation can never yield a book.

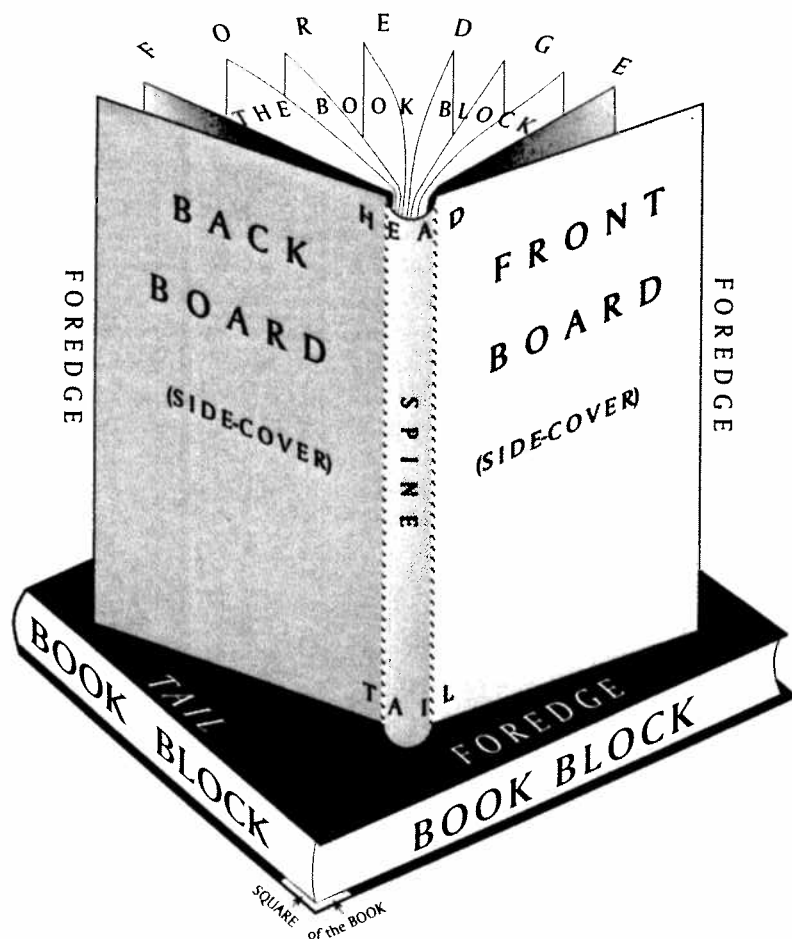
A sense of the format is glimpsed through introspection, but it is only achieved by making many, many books. Each resolved in a different way expands vocabulary. Work is the activity of play through discipline. Without discipline, there is no freedom. Without play, craft and skills are sterile. Play, but play for keeps—be willing to say something. Don't play it safe and make pretty, but meaningless objects. What you say reveals who you are. It's not easy to reveal oneself. I think that is what Matisse was saying in 1905, when he said, "Art is as a crime."

PARTS of a BOOK

Examine a book, stripped of content, so that all that is seen is its elemental characteristics. The blank book is richly laden, part by part.

Terms are often explained as they are introduced in this text. Also they are defined in the *Glossary of Terms*, page 335. Common words are preferred to jargon of the trade. But it is important to use words in a way which will not conflict with the established vocabulary of bookbinders.

This text has been edited to conform to *A Vocabulary of Terms for Book Conservation Practice* by Gary Frost.



SUPPLIES

Tools and materials for non-adhesive binding are few and inexpensive. There is no need for presses or other heavy and costly equipment. If you are a vegetarian, you need not use leathers, nor animal adhesives.

TOOLS

ITEM	QUANTITY
bone folder or plastic substitute	1 per student
2½" curved needles	1 per student
3" curved needles	1 per student
straight needles to fit #18 thread	1 per student
small (#11) X-Acto® knife and blades	1 per student
elf-sealing cutting base, about 18 x 24"	1 per student
scissors	1 per student
steel rule	1 per 3 students
right triangle	1 per 3 students
bradawl, a straight shafted awl (or bodkin)	
See Glossary	1 per 2 students
twist paper drill or hand punch	1 per 4 students
gouge (curve-bladed chisel)*	1 per 4 students
dividers*	1 per 4 students
paper cutter*	
punches*	1 per 4 students

* Not a necessity, but eventually would be worthwhile.

MATERIALS

Stocking a working space with a few tools and materials can be done for under \$50 for an individual, \$200 for class of a dozen students:

QUANTITY	ITEM
straight needles to fit #12 thread	1 per student
1 roll unbleached #18 linen thread	
1 roll unbleached #12 linen thread	
1 ball of #6 or 8-cord linen twine	
beeswax	1 per 3 students

Book Board

cover boards (Davey Red Label binder's board is suggested)

1 per student

.060" deep, x 26" x 19" (thin board)

.080" deep, x 26" x 19" (medium board)

.100" deep, x 26" x 19" (thick board)

Papers

sheets of smooth white paper, 70 or 80 lb. text, approximately 17 x 23"

30 per student

smooth white paper, 70 or 80 lb. cover, approximately 17 x 23" (Mohawk Superfine is an inexpensive archival paper)

10 sheets per student

assorted colors, 70 or 80 lb. text, approximately 17 x 23" (Classic Laid or Strathmore Charcoal)

10 sheets per student

assorted colors, 70 or 80 lb. cover, approximately 17 x 23" (Strathmore Grandee or Canson)

10 sheets per student

Marbled and fine combed papers

As you become more involved in binding, you might start building an inventory of various 100% rag printing papers and a collection of marbled and handmade papers. In addition, you might purchase a used compositor or stamping machine with type for printing covers.

Try not to buy machine-made papers in individual sheets. They are far less expensive if purchased in increments of 100 sheets, with an even larger discount by the ream.

SOURCES

Membership in guilds gives access to their directories. Contact:

Guild of Book Workers
521 Fifth Avenue
New York, NY 10175
<http://palimpsest.stanford.edu/byorg/gbw/gbwnews.shtml>

The Book Arts Guild
Sandra Kroupa, Membership Secretary
515 N. 49th
Seattle, WA 98103
<http://bookartsguild.org>

The Canadian Bookbinders and Book Artists Guild (CBBAG)
176 John Street, Suite 309
Toronto, ONT M5T 1X5 Canada
T 416 581 1071 F 905 851 6029
<http://www.cbbag.ca>
Email: cbbag@web.net

UK Directory of Suppliers available for £5.50 from:
Designer Bookbinders
Publications Ltd to Lester Bath
DBPL, 8 Bryn Coetmor, Bethesda, Bangor
Gwynedd, LL57 3NL UK
email: publications@designerbookbinders.org.uk

TYVEK

Some people are beginning to investigate the use of Tyvek as a paper substitute and even in place of book cloth. I investigated printing on it with my laser printer. DO NOT USE TYVEK IN YOUR PRINTER! It melted. But Tyvek has many non-printing possibilities.

Tyvek is spun boron, an inert material, flexible, tough, with tremendous strength. It cannot be ripped. Various shippers, United Parcel Service and the Postal System now make their envelopes of this material, rather than paper.

Tyvek is used as a house wrap. One side faces out. It allows moisture to go out, but not back through. A roll 9' x 50' costs \$200. I could not find any without advertising printed over the entire surface.

However, Tyvek is available from commercial paper suppliers in three thicknesses. It is not expensive. Purchased in 100 sheets, 23" x 35", it is about \$1.40 a sheet. Grain direction is not a problem. See *Paper-grain*, page 45.

As Pages

Archival, flexible and strong, Tyvek seems perfect for pages in a book. It can be sewn.

As Book Cloth and Hinges

Since it is strong, it can be a substitute for book cloth. PVA must be used as the adhesive, not wheat paste. It can be a substitute for jaconette, which is often used as a hinge under a paper or leather hinge to reinforce the weaker material.

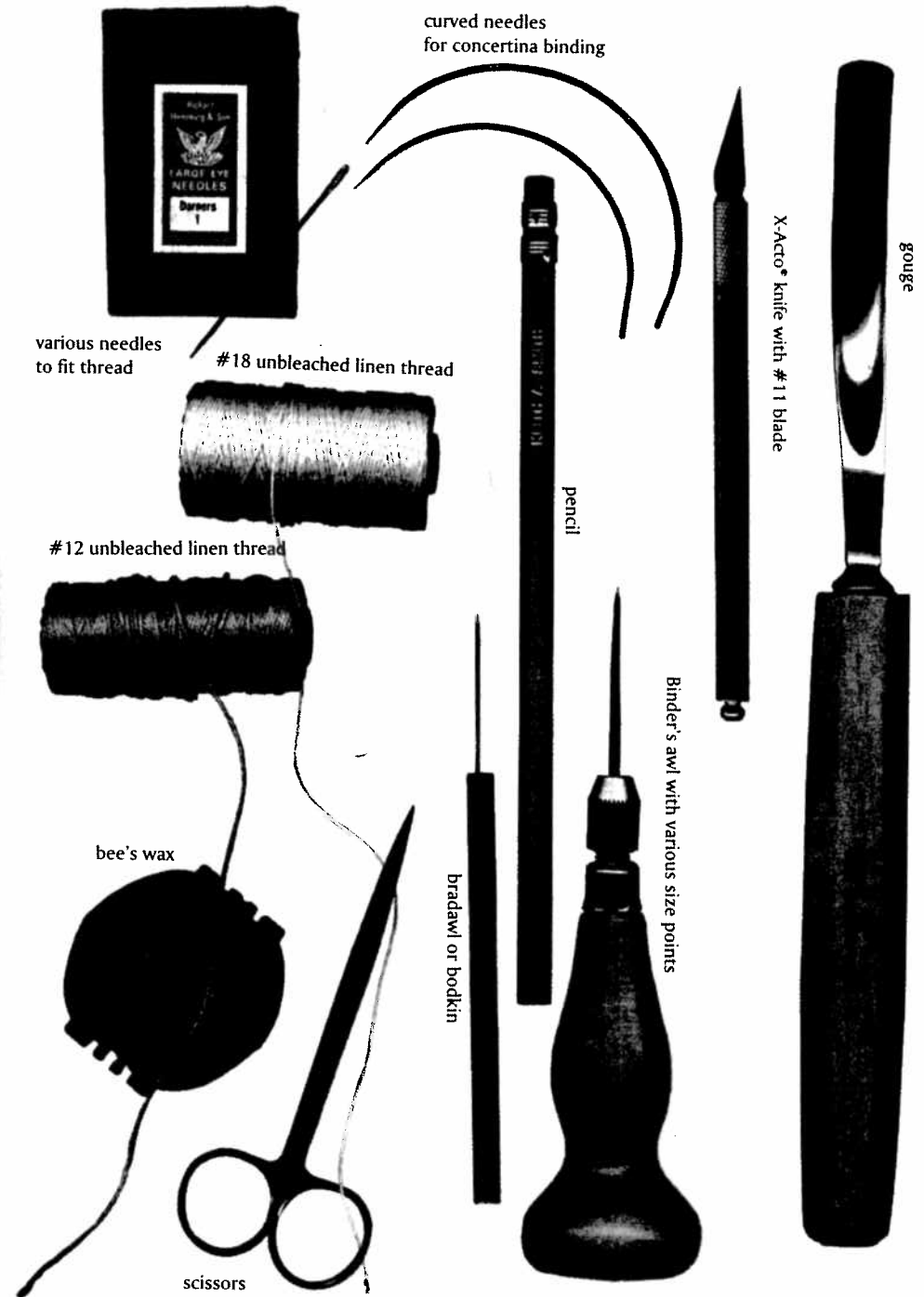
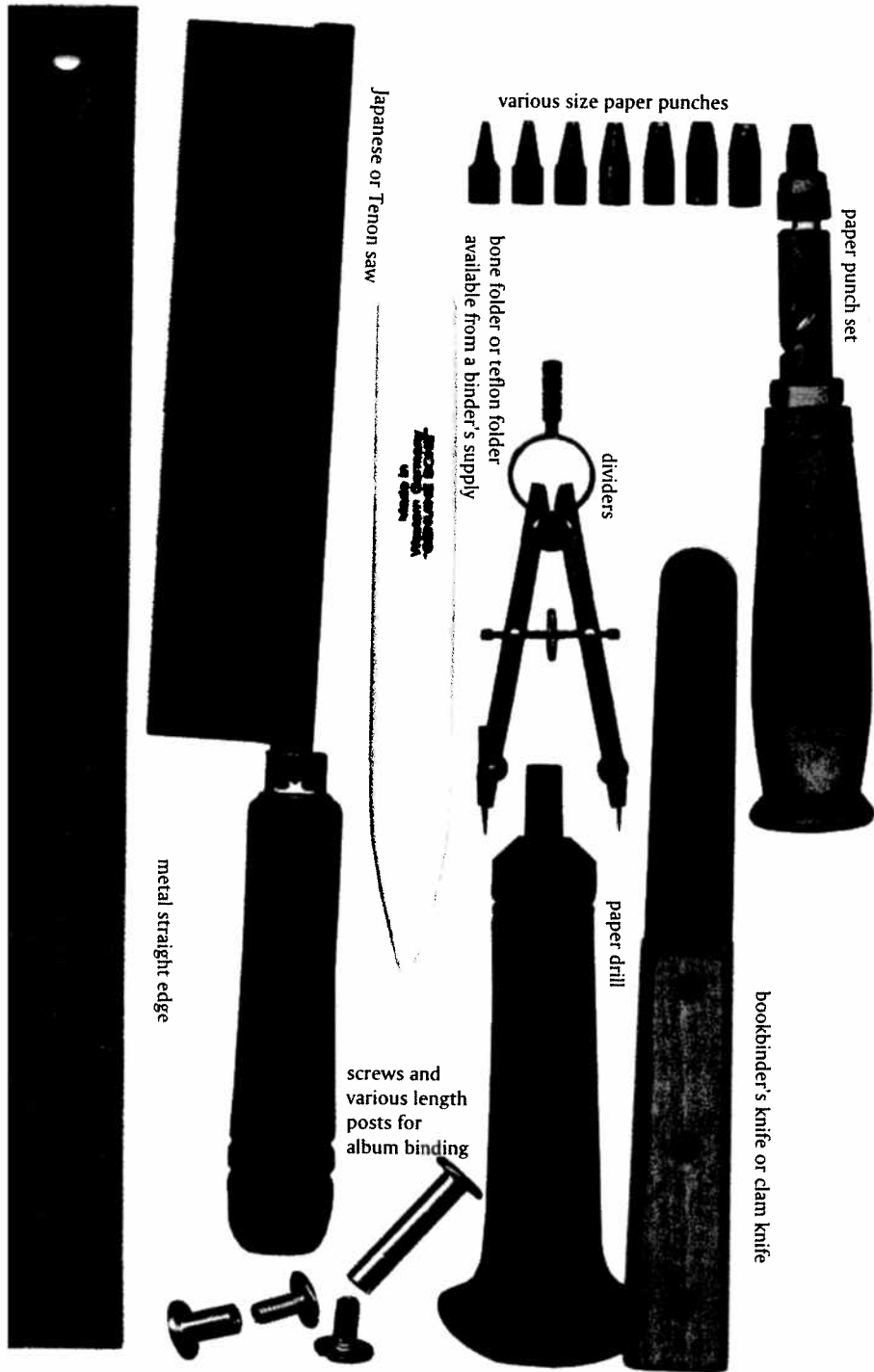
Counterpoint

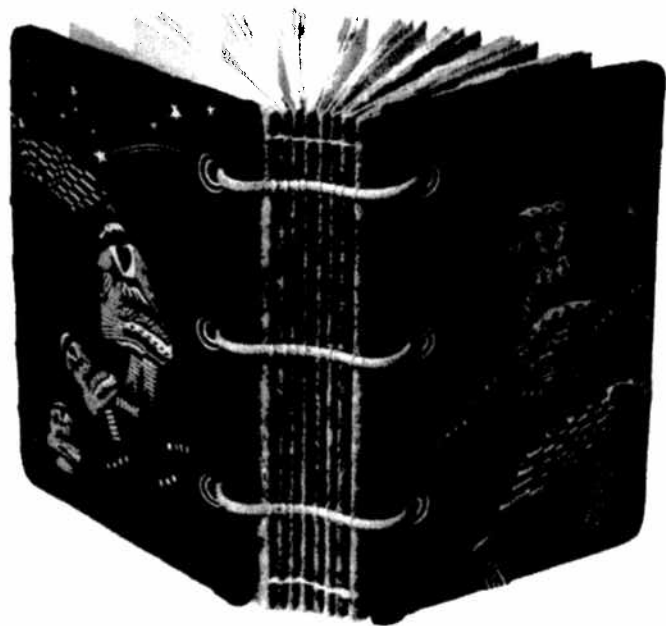
Some binders are skeptical. They say in time Tyvek may lose its plasticizer. Like rabbit hide glue used in the 19th century, it may eventually dry out and shatter.



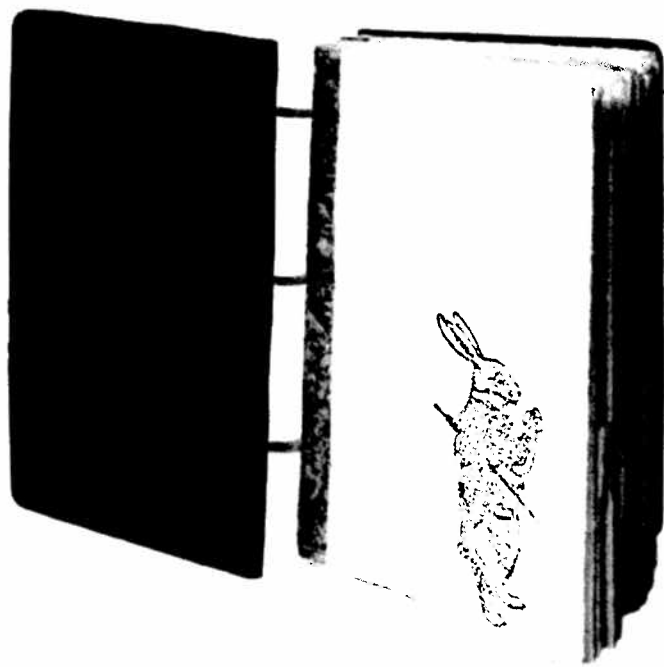
Keith Smith,
10 Dictionaries,
prototype, 1998.

Sewn onto tapes. Quarter binding, using tyvek with pigment rubbed into the surface.





Kathleen Amt, *Alice*, 1990. Sewn onto leather cords with clay covers. For sewing onto tape supports see pages 187 and 191. For sewing raised cords see page 193.



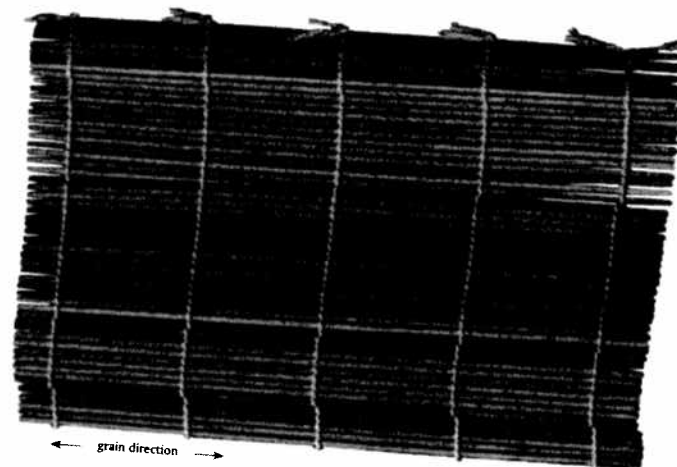
This part of the book is preliminary reading before the descriptions of the bindings. Certain information and operating procedures about paper, thread, sewing procedures and covers common to all the bindings are discussed.

PAPER

In making paper by hand, the pulp is allowed to settle randomly, assuring that the fibers are multi-directional. The resulting paper folds as easily in one direction as the other. When paper is mass-produced, the water flows across the surface in one direction, causing more of the fibers to settle in the direction of the flow. Because of this, most commercial paper tends to fold easier in one direction than the other. This is referred to as the *grain* of the paper.

In planning how to fold down a sheet, the final fold, which is at the spine, must always be *with the grain* of the paper.

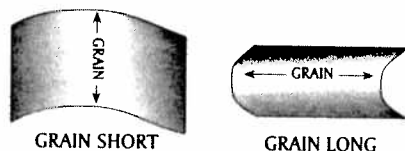
Grain of the paper, like the board for the side-covers, always runs parallel with the spine of the book. This is so that in turning pages the paper naturally curls from side to side, aiding turning the page rather than the page curling up from the head and tail.



DIRECTION OF GRAIN: In workshops, Scott McCarney demonstrates grain direction by showing a sushi mat. The direction of the wooden sticks represents the direction of the grain in paper or book board. Just as the mat rolls easily in only one direction, so does paper. Confusion comes when some say, "Paper bends *parallel with the grain*," while others term the same action as *against the grain*." Everyone will not agree on the term, but hopefully will understand the principle.

Grain Direction

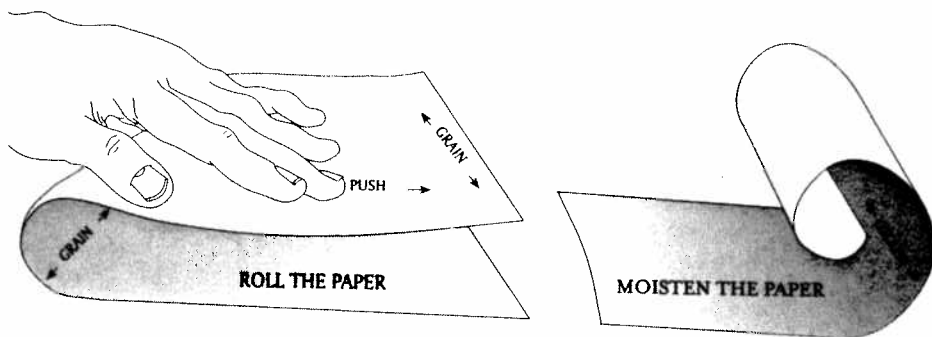
Viewing a horizontal sheet, if it curls from side to side easier than from top to bottom, it is referred to as *grain short*. If the horizontal sheet bends easier from top to bottom, it is called *grain long*.



Grain runs parallel with the direction of the paper in which there is less resistance to folding. Sometimes it is difficult to determine grain direction. Some papers are balanced and can be used in either direction. Other papers have a strong grain direction, but the small size of the paper can cause confusion. If bending the paper first one way and then the other does not show which direction has less resistance, there is another way to test for grain. Dampen a scrap of the paper and it will curl immediately. The axis of the curl is *parallel with the grain*. The curl shows the direction the paper should be folded. Grain runs up and down the sheets, parallel with the sewing.

Specifying the Direction of Grain

Paper is usually grain long. Paper companies generally list the direction of the grain as the second dimension: 23 x 35". Other companies will point out the direction of the grain by underlining that dimension: 17½ x 23". This smaller sheet might come from the mill 23 x 35", grain long, but they are selling it cut in half. Sold as a half sheet, the 23" figure would be misleading listed second since it is actually the shorter side of a sheet that has been cut down.



TESTS FOR GRAIN DIRECTION: Roll a sheet of paper without creasing it, first in one direction, then in the other. The direction in which the rolling is less resistant, the grain is parallel with the fold. If you cannot tell, moisten a scrap piece. It will curl with the grain.

Specifying Dimensions of a Finished Work

The dimensions of a book, section or a photograph are always listed with the height first, then the width. If the work has a third dimension, it is listed third. This book is 9 x 6 x 1½".

Marking the Measurement

Indicate the measurement to be folded on the sheet. Never use ink or ball-point. A light pencil dot can be erased, but is inaccurate because of its width—leaving to chance whether the fold is on the left, right or center of the mark. A pin prick is better. The ideal tool is the edge of your thumbnail. The indentation along the top edge of the sheet is the start of the fold. Use the top edge as a guide.

To Fold Paper

Start a loose fold with the measured mark on the outside of the fold. Crease the paper down an inch at the dot. Line up the two top edges of the sheet and firmly hold in place with one hand, while completing the crease lightly with the other. The single stroke should go downward and outward, away from the point where the two top edges are being held aligned. This insures the fold is at a right angle to the top edge. Give the fold a permanent crease with a bone folder. Do not use several strokes with the bone folder as this will cause the paper to shine.

To Score with a Bone Folder

Keeping the straightedge held firmly in position, score with a pointed bone folder. Hold the straightedge with one hand and fold paper back against the straightedge, along the indentation. This can help in the process of creasing to obtain a clean fold. A bone folder indents to score, whereas a knife incises to form a score on heavier stock paper or book board.

To Score Thick Paper or Board with a Knife

Cut ⅛ the way down through the thickness of the paper or board with an X-Acto® knife. Heavy stock used for covers or a fold book should give a clean fold when it is parallel with the grain of the paper. If it tends to crack at the crease, the paper will first have to be scored, that is, slightly incised where it is to be folded.

Position a right angle lining up with the bottom edge of the cover paper. Cut along the edge of the right angle. If you cut too deeply, you will weaken the paper. Make the fold with the cut on the mountain peak.

Alternate the cuts with the other side of the sheet. Be consistent in lining up the right angle either with the top or the bottom edge.

If the paper has been cut slightly off from 90°, the top and bottom edges will not be parallel and neither will the resulting folds.

To Tear Paper

Torn paper edges are often attractive in a hand-bound book. They are impossible in a commercially-made production book, which makes them all the more desirable in hand-bound small edition and *one-of-a-kind* (single copy) books. Sometimes the deckled-edge is incorporated in the binding but the sheet is larger than the page. The other edges must be either machine cut or torn. Tearing paper can imitate the deckled-edge. Instead of placing all deckled-edges at the head and your torn edges at the tail, alternate the deckled-edge with the torn to offer less comparison between the two. Each method of tearing gives a different edge:

1. Lay a straightedge where the paper is to be torn. Firmly hold it in place with one hand, while you tear against the straightedge.
2. For a more exaggerated torn edge, use a wooden ruler which has a metal edge inserted. Since the metal is raised above where the paper is held down to the surface of the table, the tear will peel as it frays. The higher the metal edge is from the surface, the more exaggerated the tear. You can increase the height of the metal by placing masking or duct tape on the bottom of the ruler.
3. The most extreme and perhaps the best imitation of the deckled-edge by tearing is accomplished by a different approach. Fold and crease the paper where it is to be torn. Reverse the fold and crease. With a damp sponge, stroke the folded edge. Do not run the sponge on the surface of the paper, only across the edge of the fold. Reverse the fold and stroke it with the sponge. Open the paper and gently pull it in two at the weakened fold. The paper will fray more than tear, leaving an edge of hairy fibers.
4. Run a Rapidograph™ filled with water along a ruler for Eastern papers with long fibers. Hold ruler in place and gently pull. If an area resists, scrape the fiber with an X-Acto® blade, but do not cut.

To Cut Paper

Cutting and trimming paper by hand should be done with a sharp blade using a metal straightedge as a guide. Slits are made in the same manner. Whenever this text says *cut* or *slit*, this is the assumed procedure. An X-Acto® knife with a #11 blade is recommended as it has a narrow point which is easily positioned and is thin so it does not throw a burr on the paper.

Never cut directly on the table, not only to protect the furniture, but to avoid a ragged cut. Always use a self-sealing cutting mat under the sheet to be cut. Scrap book board is a poor substitute.

Your cut will be imperfect if it extends over an area where the book board is incised from a previous cut. Only use #11 blades with a self-sealing mat. Heavy-duty blades will shorten the life span of the mat. A cutting mat may seem expensive, but it is a valuable tool and a pleasure to use.

Paper Cutters: An ideal paper cutter has a clamp-bar close to the blade to hold the paper in position so it does not creep as the blade slices through the paper. The clamp-bar should come down parallel with the plate, so it must be hinged at both ends. A cutter with a clamp-bar having a single hinge located near the fulcrum of the blade is to be avoided.

The right angle bar may be located along the top or bottom edge. It should be adjustable and all paper cutters should be checked monthly with a large metal right angle to determine if the angle bar needs adjusting. Do not take it for granted that all paper cutters cut at a right angle. Few do. Only those capable of being adjusted and which are serviced regularly will give you an accurate cut. In folding, especially concertinas, it is impossible to achieve acceptable folds if you do not start with a sheet with 90° corners.

Never try to cut several sheets of paper at once. The bottom sheets will be ragged and probably not cut at 90°. The practice abuses the hinge of the blade.

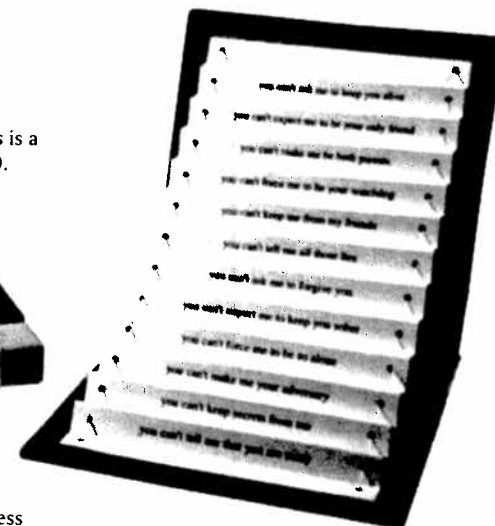
Never cut book board or card on a paper cutter. If you do not have a board shear, cut by hand using a heavy-duty mat knife and straight edge. Place scrap book board underneath. Do not use mat knives on self-sealing cutting mats.

A fold book/Venetian blind, this is a compound binding. See page 249.



Emily Martin, *My Twelve Steps*, Edition of 100, 1997.

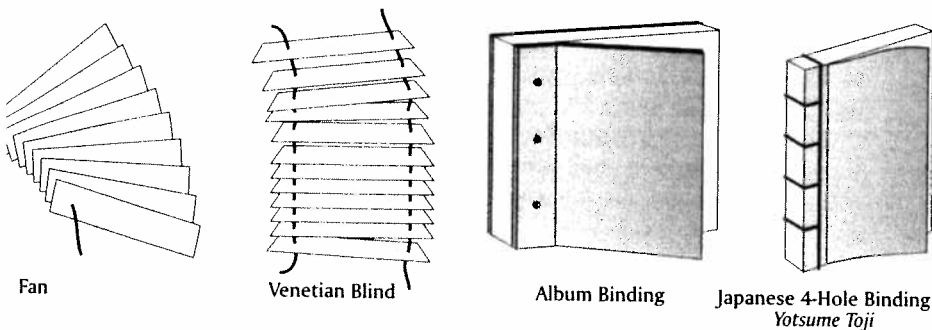
A pop-up book printed letterpress on cream colored Rives heavy weight paper. Case bound with flax and moriki paper over acid-free binders board. Bamboo and cotton pull cord and bead stops for closing. 15.2 x 15.2 x 2.5 cm.



SHEET

A *sheet* is one piece of unfolded paper with a front and a back side forming two pages.

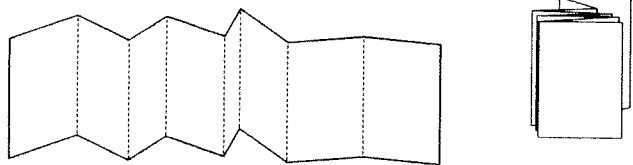
Several unfolded sheets can be compiled and bound as a book, either as *fan*, *venetian blind* or a *codex*, as the *Album Binding* or a *stab binding*.²



In compiling single sheets to form a codex the paper grain direction should be parallel with the backbone.

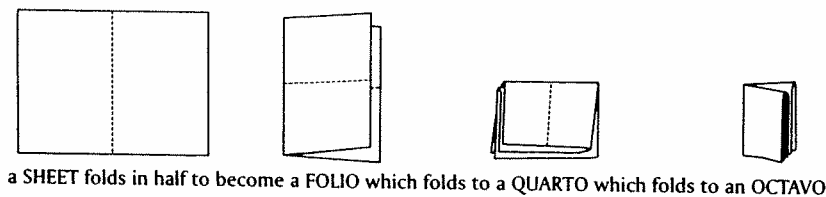
Three kinds of single sheet codex bindings are described in this text: *Album Binding*, page 133; *Single Sheet Pamphlet Stitch*, page 106; and *Stab Bindings*, beginning on page 107.

A single sheet can be altered to become several pages by alternately folding it back and forth upon itself to become an *Oriental fold book*.



A sheet of paper can be folded down to become a book. The alternating folds are parallel with the grain of the paper. This is the *fold book*.

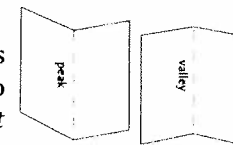
A sheet folded down into a section becomes a *codex*.



a SHEET folds in half to become a FOLIO which folds to a QUARTO which folds to an OCTAVO

FOLIO aka fo

Folding a sheet in half yields a folio. The fold is the back bone and parallel with the grain. A folio consists of 4 pages. With a folio, the terms *front* and *back* are irrelevant.



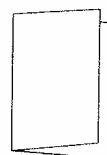
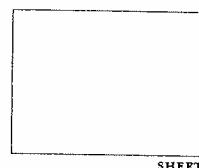
Each surface is a front during the act of viewing. Each is a back when that page is turned. To consider the right side of a two page spread as the "front" to be imaged and the left as a "back" to remain empty, is to negate 50% of display.

The Western codex is unique in all of art because it is *two-sided display*. It cannot be seen at once, but is revealed through time.

SECTION aka signature

Assembled Sections

Two or more folios, one inside the other as a sewing unit, is a section, as shown on the right. The section is *compiled*. On the left, sections are shown *folded down*.



FOLIO



QUARTO



OCTAVO

FOLDED DOWN

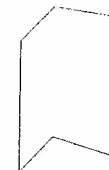
Folded Down Sections

In production work, compiling folios into sections is not an efficient procedure. It would require printing each individual folio at a time. Or, several folios would be printed on the same sheet, then each cut and assembled into units as sections. This would be cost-prohibitive.

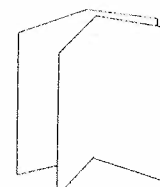
In production printing signatures are machine-folded down. If it is not a blank book, it is first printed in imposition. A machine folds the sheet in half, two or more times. The folds alternate against and with the grain. The head, tail and fore-edge are trimmed leaving only the fold along the backbone. Trimming is generally done after sewing, when all the sections, called the book block, can be trimmed at once. If there is a paper cover, this is attached to the book block prior to trimming. This saves time and insures uniformity, since all the units are held in position by the binding.



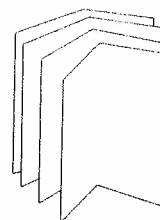
SHEET



FOLIO



QUARTO



OCTAVO

COMPILED SECTIONS

In hand binding, sections are hand-folded down. Folding down a sheet into a section requires two or more folds. Each fold after the first consists of folding layers of paper and folding against a fold. This tends to result in unsightly wrinkling at the second and third folds.

To avoid this, after each fold, slit the fold more than half way, but less than $\frac{2}{3}$ the length of the fold. Use a dull knife, such as a clam knife. Make the next fold, then slit it in the same manner. The slits relieve the pressure, allowing the additional folds to crease neatly without wrinkles at the corners, referred to as *crow's feet*. The part of each fold that is not slit holds the section together until it is sewn and the slits are extended to the backbone with a knife or the edges are trimmed with a blade.

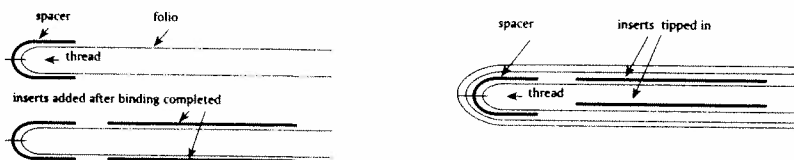
The binder tends to fold down sections if making a blank book. The book artist tends to compile sections placing folios within folios. This is because the pages are imaged prior to binding. It is easier to image a folio than an octavo. Also, if a mistake is made in imaging one page, the entire octavo would be distorted. Only four pages of pictures are at risk in imaging a folio.

Both the folded down octavo and four compiled folios shown above will give 16 pages. There are other considerations of whether you should choose one over the other.

The compiled folios will require sewing four rows. Thread inside the folds will swell the backbone much thicker than the foredge. This is referred to as *swell*. It is a disadvantage because the covers will not be parallel. Storing on a bookshelf, the spine-edge will collapse. It is an advantage to sew individual folios if you are going to tip in pictures. This will tend to bring the foredge to the same thickness as the spine-edge.

Sewing the octavo has the advantage that it is quicker, since there is only one length of sewing instead of four with the compiled folios. Sewing the octavo has the disadvantage if you tipped in pictures into a folded down section because the foredge would bulge open. The covers would not be parallel and it would look stuffed.

You can sew a folded down section and tip in pictures. *Spacers* will leave space for a tipped in picture. See *Swelling the Back*, page 68.



FOLIO with a spacer to tip in two pictures. SECTIONS can have one or more spacers.



Cross Section of a folded down octavo.



Cross Section of four folios sewn separately.

Quarto aka 4to

A section consisting of 8 pages is made by folding the sheet in half, first against the grain. The result is then folded in half again, with the second fold perpendicular to the first.

In folding down a section, the final fold is always with the grain, since it will be at the back, aiding the hinging action.

Octavo aka 8vo

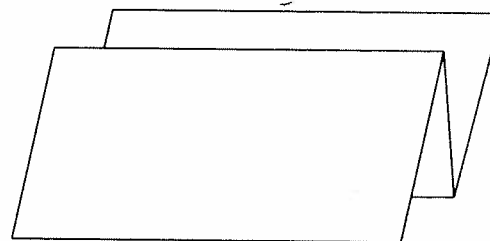
Folding a sheet in half three times yields a 16 page section. The first fold is with the grain, the second against and the final fold is with the grain.

A very thin paper might be able to be folded in half four times, giving a 32 page section. However, the inside folds tend to wrinkle and pages within may slightly vary in size. In addition, when the book is sewn, it tends to gap open at the center folio. If 32 pages are needed, it is better to use four quartos or two octavos.

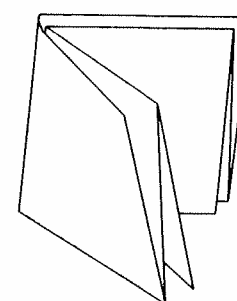
Sexto aka 6to

A 12 page section is constructed by first folding the sheet in thirds, against the grain. This is referred to as a Z-fold. The result is then folded in half perpendicular to these folds, with the grain.

STEP 1: Fold in thirds against the grain.



STEP 2: Fold in half with the grain.



Folding down a twelve-page section referred to as a *sexto*. The final fold creates the spine-fold. The final fold must always be with the grain.

PROPORTION and SIZE of BOOKS

Proportion and size of the book depends upon the manner in which a sheet is folded into a section. For economy of paper, sheets are usually folded down utilizing the entire sheet. If the sheet is 18 x 24" and two inches is cut off the shorter side, to give a sheet 16 x 24", over 11% of the paper is wasted. Cost of production rises that amount.

If the book is to go into production, dimensions of the book are affected by three factors:

1. Standard sizes in which reams of paper are sold.
2. The direction of the grain of those papers.
3. The maximum size of sheet the printing press will accept.

One of the first considerations in creating a book must be where it will be printed. Different printers have different size presses. Next, the paper must be selected, as it may not come in a proportion that will cut down efficiently to fit that press. The desired paper may be grained the wrong direction and another paper must be chosen.

Whether the book is to be a production or a one-of-a-kind, size of paper is a limitation with which to contend. If the sheet is 18 x 24", the following are the options of proportion and size of the resulting book, when the full sheet is folded down.

If Grain Short

Sections created with an 18 x 24" sheet, halved with each fold are shown on the facing page. The sheet folded down creates the following:

18 x 12" Folio (1 fold, 4 pages)

18 x 6" Quarto (2 folds, 8 pages)

9 x 12" Quarto (2 folds, 8 pages)

9 x 6" Octavo (3 folds, 16 pages)

4½ x 12" Octavo (3 folds, 16 pages)

6 x 12" Sexto (12 pages) A section created with a 18 x 24" sheet with a Z-fold yields a sexto, also referred to as 6to.

If Grain Long

Sections created with an 24 x 18" sheet, halved with each fold are illustrated on page 42.

24 x 9" Folio (1 fold, 4 pages)

24 x 4½" Quarto (2 folds, 8 pages)

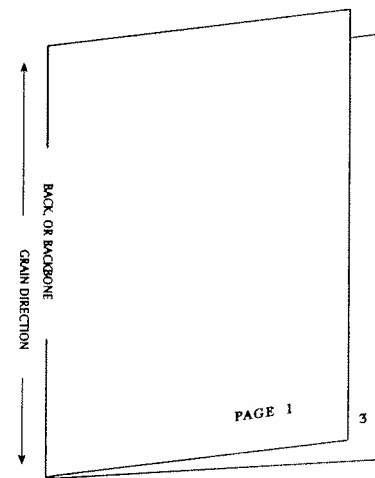
12 x 9" Quarto (2 folds, 8 pages)

12 x 4½" Octavo (3 folds, 16 pages)

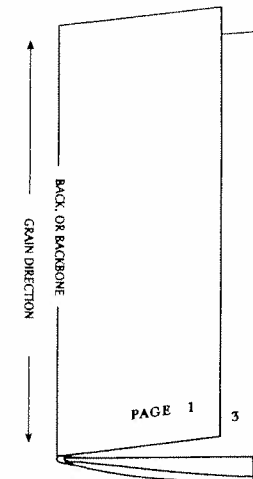
6 x 9" Octavo (3 folds, 16 pages)

8 x 9" Sexto (12 pages) A section created with a 18 x 24" sheet, with Z-fold is also called a 6to.

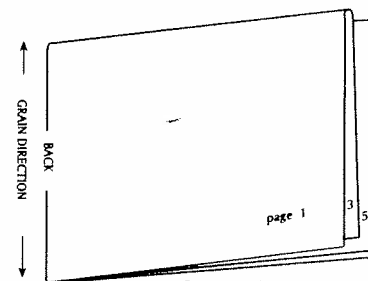
GRAIN SHORT



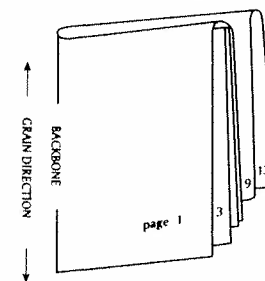
Folio 18" x 12"



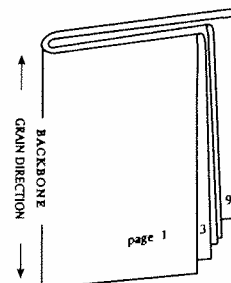
Quarto 18" x 6"
both folds with the grain



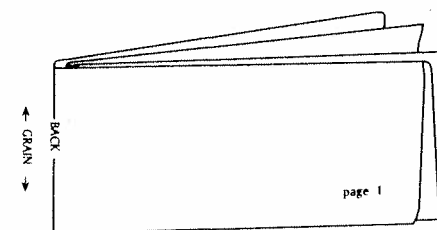
Quarto 12" x 9"
first fold against the grain
second fold with the grain



Octavo 6" x 9"
first fold with the grain
second fold against the grain
third fold with the grain

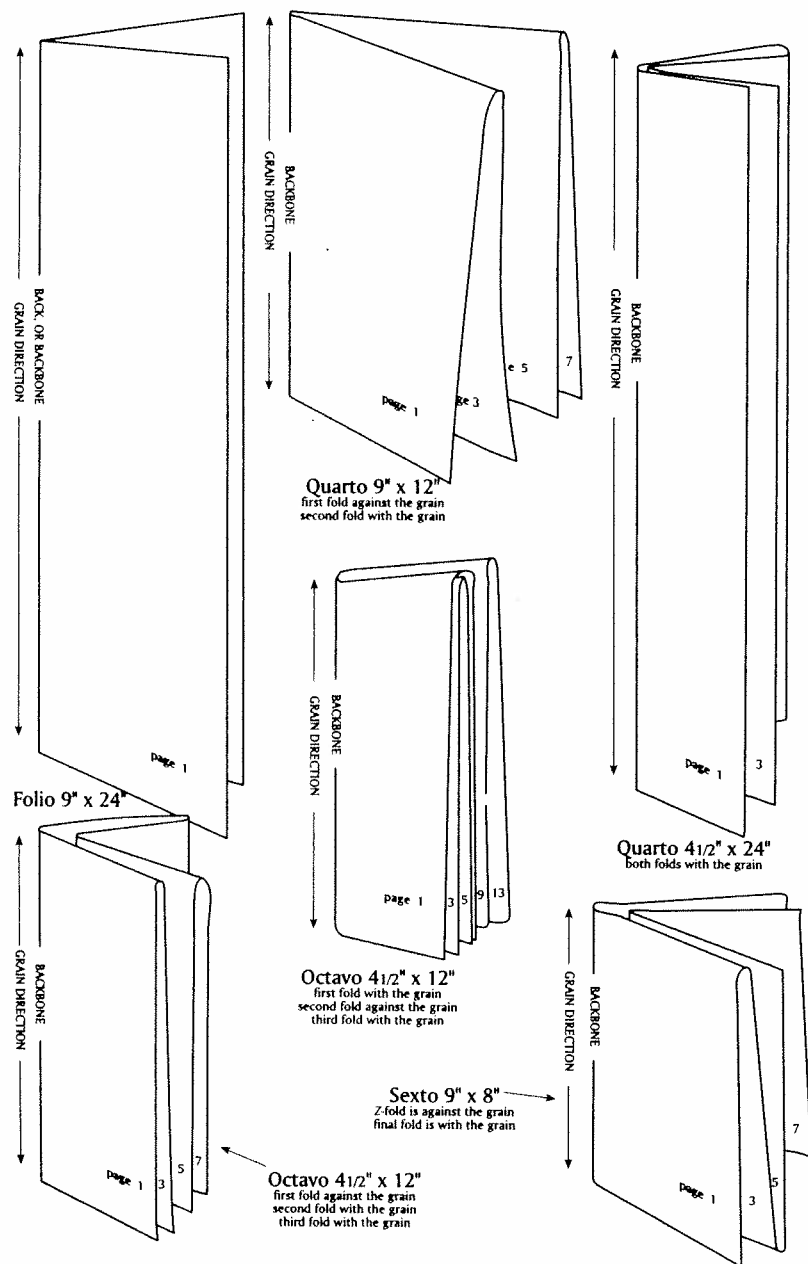


Octavo 6" x 9"
first fold against the grain
second fold with the grain
third fold with the grain



Sexto 6" x 12"
Z-fold is against the grain
final fold is with the grain

GRAIN LONG



IMPOSITION

The *imposition* of a sheet is the laying out of page numbers on a sheet, so that they will be in numerical order when the sheet is folded down into a *section*.

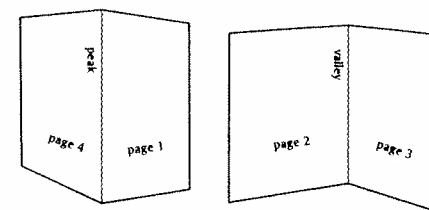
In commercial printing, the sheet of paper is printed, upon which are many pages, unless it is a broadside (poster). This sheet is then turned over and the corresponding pages are printed on the back. The first side is called *Side A*. The other side of the same sheet is referred to as *Side B*. Number of pages are determined by how it is folded down, into a folio, quarto, octavo, sexto, duodecimo, et cetera.

Looking at the flat sheet, the layout of pages is not in numerical order and some pages might be upside down. See *Chart of Impositions*, page 60. The layout of the sheet is in a constructed order. It is *imposed*, so that the pages eventually will be upright and in consecutive order, after the printed sheet is folded down into a section referred to specifically as a *signature*. See *Glossary*. The layout of this constructed order on the flat sheet is referred to as *imposition*.

One or more sheets may be printed, resulting in that number of signatures in the finished book. This text book was printed on twenty-two sheets, creating that number of 16 page signatures, making a 352 page book. Put another way, this book is a 22 sheet octavo. Since the page size is 9 x 6", it was printed on an 18 x 24" sheet.

FOLIO

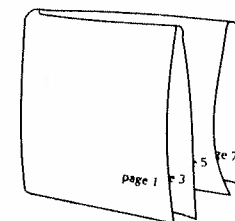
Imposing a folio is simple. The right hand side of *Side A* is page 1, while the left is page 4. *Side B* is page 2 on the left, 3 on the right.



Front and back or *Side A* and *Side B* of the same sheet folded to a folio.

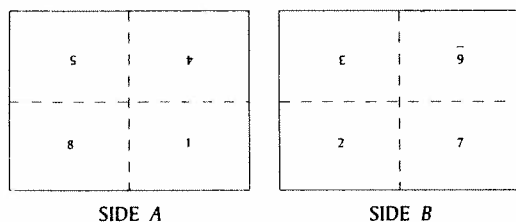
QUARTO, folded down

Imposing the numbers on a sheet to be folded down into 8 pages or more is difficult on a flat sheet. The easiest method is to take a scrap sheet. Fold it down to whatever number of pages desired. In this instance, 8 pages. Start at the front of the section/signature and number the pages in numerical order, 1 through 8.



GUIDE TEST: A scrap sheet is folded to a quarto and numbered while still folded. It is opened flat and examined.

Open the section to a flat sheet. Examine it.



GUIDE TEST: The folded quarto at the bottom of the previous page is opened flat. On the left is one side of the sheet with the pages that appear on it. Two pages are upside down when opened. On the right is the other side of the same sheet.

One side, Side A, is page 1, as well as the final page, 8. Notice that pages 4 and 5 on this side of the sheet are upside down.

Side B is not a separate sheet, but the back side of the same sheet. Notice that page 2 backs up with page 1. Page 2 is across the gutter from page 7. They are not in numerical order, but they are definitely in an order: The numbers are in their *imposed* order.

If you were designing a flat sheet that later would be folded down, you would lay out the pages in their imposition, as in the illustration, above.

QUARTO, *compiled*

Rather than folding down a sheet to 8 pages, you might compile 2 separate folios as a quarto.

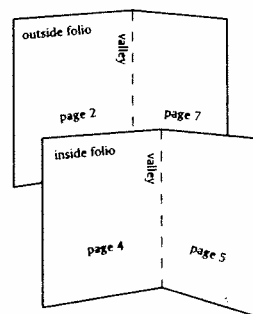
Folio 1 would not be numbered as a folio, diagrammed at the top of the previous page. It would be numbered as part of a quarto.

Instead, on Side A of Folio 1 would be page 1 on the left, but page 8 on the right.

Side B would be pages 2 and 7, as shown to the right on the folio which will be on the outside of two compiled folios.

Folio 2 would be slipped inside the first to form a quarto.

Side A of the inside folio would be pages 6 and 3. The other side of the second folio is Side B, the valley. It will contain pages 4 and 5, as shown above.



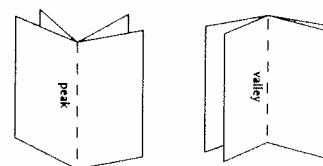
Two folios compiled as a QUARTO.
SIDE B of both sheets is shown above.

IMPOSING A COMPILED QUARTO

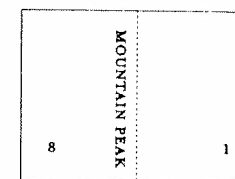
Looking at both sides of the compiled quarto shown at the bottom of the facing page, you can see how the page numbers are imposed.

Side A is the Peak

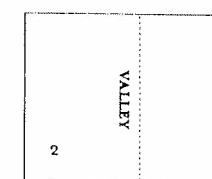
It is important to remember in compiling folios to form a section, that Side A always represents the *mountain peak* of the fold. Side B is the *valley* of that same fold—it is the other side of the same sheet.



FOLIO 1

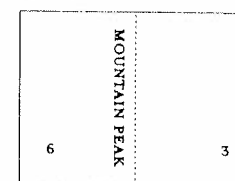


FIRST SHEET, SIDE A

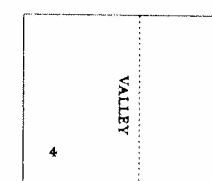


FIRST SHEET, SIDE B

FOLIO 2

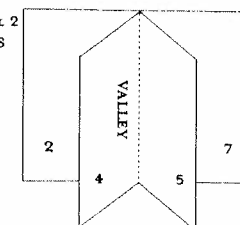


SECOND SHEET, SIDE A



SECOND SHEET, SIDE B

FOLIOS 1 & 2
COMPILED AS
A QUARTO



“Front” and “back” are irrelevant terms. Each page of the section is a front when opened to it. The same page becomes a back as that page is turned. Thus, the sheet is referred to as Side A and Side B.

Illustration on page 60: CHART OF IMPOSITIONS

One sheet, 4 pages and 2 sides are shown imposed, at the top, as a folio. Next, the same size sheet is imposed as a quarto. Thirdly, if the sheet is folded down into an octavo, the page numbers would be imposed as shown. At the bottom, a sheet would be folded against the grain with a Z-fold, then in half to form a sexto. The sheet is imposed as a sexto.

4	1
---	---

Folio

SIDE A

2	3
---	---

SIDE B

5	4
8	1

Quarto

SIDE A

3	9
2	7

SIDE B

5	12	9	8
4	13	16	1

Octavo

SIDE A

7	10	11	9
2	15	14	3

SIDE B

8	5
9	4
12	1

Sexto

SIDE A

6	7
3	10
2	11

SIDE B

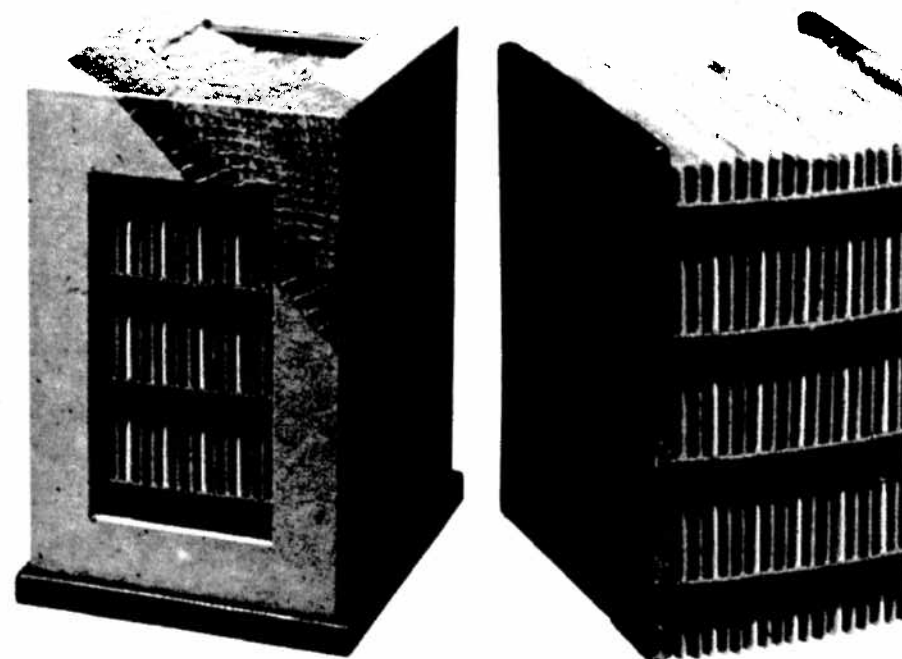
ENDSHEETS

Often the first and last sections of a multi-section binding are a different paper than the remainder of the book block. These are endsheets at the front and back of the book. If you wish, they might be a folio or quarto, even though the remainder of the book block is octavo or larger.

Endsheets are often a fine laid paper. The text weight paper is the same or lighter weight than the book block. Often they are a color different from the book block. They may be the same color as the cover. I see endsheets, cover, jacket, liners, supports and thread as the opportunity to introduce additional colors to the binding.

The function of endpapers is much like a mat on a framed picture. It isolates the content, serving as a pause to clear the mind, before entering the text/image. Turning several blank endsheets slows the viewer in anticipation. Just as when the curtain rises on the stage or the cinema, it says, "hush, we are about to begin."

The term *end papers* refers to adhesive binding. It is a folio, half of which is pasted down on the inside of the board cover. The remainder extends across the gutter as the first page of the book block.



William Drendel, *Jaula de la Serpiente*, 1993. Sewn onto Tapes. Goat skin with snake skin onlays. Box has a glass window. 15.7 x 13 x 11.4 cm.